

CLAIMS

1. A polypeptide comprising
- (i) tetanus toxin fragment C or a fragment thereof of at least 6 amino acids, fused to
- (ii) the pre-S1 region of hepatitis B virus (HBV) or a fragment thereof of at least 6 amino acids, and/or the pre-S2 region of HBV or a fragment thereof of at least 6 amino acids,
- wherein the polypeptide induces antibody that recognises the pre-S1 and/or pre-S2 region of HBV.
2. A polypeptide according to claim 1 which comprises a fragment of tetanus toxin fragment C of at least 100 amino acids.
3. A polypeptide according to claim 1 which comprises full length fragment C.
4. A polypeptide according to claim 1, 2 or 3 which comprises a fragment of the pre-S1 region of at least 20 amino acids and/or a fragment of the pre-S2 region of at least 20 amino acids.
5. A polynucleotide encoding a polypeptide according to any one of the preceding claims.
6. A vector comprising a polynucleotide according to claim 5 operably linked to a regulatory sequence.
7. A vector according to claim 6 wherein said regulatory sequence comprises an *htrA* promoter sequence.
8. A host cell comprising a vector according to claim 6 or 7.
9. A host cell according to claim 8 which is a bacterium.
10. A vaccine composition comprising a polypeptide according to any one of claims 1 to 4, a polynucleotide according to claim 5 or a vector according to claim 6 or 7, together with a pharmaceutically acceptable carrier to diluent.
11. A method of treating or preventing HBV infection in a human or animal which comprises administering to the human or animal an effective amount of a polypeptide according to any one of claims 1 to 4, a polynucleotide according to claim 5 or a vector according to claim 6 or 7.

12. A method for producing antibodies which recognise epitopes within the pre-S1 and/or pre-S2 regions of HBV which method comprises administering a polypeptide according to any one of claim 1 to 4, a polynucleotide according to claim 5 or a vector according to claim 6 or 7 to a mammal.

13. An antibody produced by the method of claim 12.

14. A method of treating HBV infection in a human or animal, which comprises administering to the human or animal an effective amount of an antibody according to claim 13.

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